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| EXAMINER | |
|---|---|
| MOORE, WALTER A | |
| ART UNIT | PAPER NUMBER |
| 1794 | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/580,070 | SHIMIZU ET AL. | |
| | Examiner | Art Unit | |
| | WALTER MOORE | 1794 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05192006, 02212007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The following reference is listed in the Specification and not the Information Disclosure Statement:

a. Specification page 36: Anti-Patent Literature No.5: Manual of the Additives for Food (Chemically Synthetic Substances), Food and Science Co., Ltd., April 1996.

### *Specification*

2. The abstract of the disclosure is objected to because it is more than one paragraph. The abstract should be in narrative form and limited to a single paragraph. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

***3.*** Claims 4, 5, 7-16 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple

dependent claim. See MPEP § 608.01(n). The Examiner has examined claims 4, 5, 7-16 on the merits. If applicants fail to correct the deficiency, the improper multiple dependent claims will be withdrawn from consideration.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 5, 7-8, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson, USPN 5,766,622.

6. Regarding claims 1 and 3, Nelson teaches a fruit juice-containing food product (liquid cold/cough composition, col. 12, ln. 37) comprising, in addition to a fruit component (citric acid, col. 12, ln. 47) and a base having sweetness (sucrose, col. 12, ln. 45), components (a) and (b): (a) a refreshing feeling substance (menthol, col. 12, ln. 49); and (b) a cool feeling substance (MPD or 3-1- menthoxypropane- 1,2-diol, col. 12, ln. 49).

7. Regarding claim 5, Nelson teaches the mass ration of the refreshing feeling substance (menthol) to the cool feeling substance (MPD) is 0.5 to 1. Calculation: menthol/MPD = 7.5mg/15mg = .5:1 (col. 12, Ex. 3).

8. Regarding claims 7 and 8, Nelson teaches the fruit juice-containing food product is a health drink (liquid cold/cough composition, col. 12, ln. 37).

9. Regarding claims 17-20, it is the Examiner's position that each of the components taught in Nelson was added to the composition. The phrase, "for reinforcing a flavor," is a statement of intended use. A statement with regard to intended use is not further limiting as a manipulative difference between the process claimed and the prior art. In order to patentably distinguish the claimed invention from the prior art, a claimed intended use must result in a manipulative difference between the claimed invention and the prior art. See MPEP § 2111.02 II. In the present case there is no manipulative difference from the liquid cold/cough composition, taught in Nelson, and the claimed process. Furthermore, it is reasonable to presume that said limitations are inherent to the invention because Nelson teaches the claimed composition. Products of identical chemical composition can not have mutually exclusive properties. MPEP 2112.01 II.

### *Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson, USPN 5,766,622, in view of Nakatsu et al., USPN 5,545,424.

12. Nelson is relied on as above. Nelson does not teach an additional flavor improving substance. Nakatsu is drawn to 4-(1-menthoxymethyl)-2-phenyl-1,3-

dioxolane and its derivatives, which are useful as an active ingredient for flavor or fragrance compositions (col. 1, ln. 7-10). Nakatsu teaches 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane and its derivatives (col. 2, ln. 22-43) prolong the cooling sensation when used in combination with menthol or 3-(1-menthoxy)-1,2-propanediol, (col. 4, ln. 34-39). Nakatsu teaches the composition is useful in chewing gums, candies, ice creams, ice candies, chocolates, snacks, cookies, cakes, breads, tea, coffee, juice, fruit wine, dairy drinks, and carbonated drinks (col. 4, ln. 43-47). It would have been obvious to one of ordinary skill in the art at the time of invention to use a flavoring improving substance, as taught in Nakatsu, in the fruit juice containing food product, taught in Nelson, to obtain a fruit juice containing food product containing a to 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane or its derivatives because the composition prolong the cooling sensation in a food product (Nakatsu, col. 4, ln. 37-39).

13. Claims 1-6, 9-10, 17-18 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapdelaine et al., USPN 5,326,574 ("Chapdelaine '574"), In view of Chapdelaine et al., USPN 4,938,971 ("Chapdelaine '971").

14. Regarding claims 1, 3, 9-10, Chapdelaine '574 teaches a food product (chewing gum, col. 1, ln. 24) comprising a base having sweetness (col. 2, ln. 49-51), a refreshing feeling substance (peppermint oil or spearmint oil, col. Col. 4, ln. 44), and a cool feeling substance 3-1- menthoxypropane- 1,2-diol (col. 1, ln. 25-26). Furthermore, Chapdelaine '574 prepared an example comprising a gum base with sweeteners (sorbitol and glycerin) and spearmint (Example 4, col. 6, ln. 59 to col. 7, ln. 14).

15. Chapdelaine ‘971 is drawn to fluid fruit juices incorporated into chewing gums and food products (col. 2, ln. 38-40). Chapdelaine ‘971 teaches a fruit juice-containing food product (chewing gum, Ex. 1 and 2) comprising a fruit component (apple juice, col. 6, ln 22), a base (gum base, col. 4, ln. 41-46) having sweetness (sweet bulking agent, col. 4, ln. 47-50). Chapdelaine ‘971 teaches it is desirable to use fruit juices to flavor and enhance chewing gum and food and beverage products (col. 1, ln. 21-24). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a fruit juice, as taught in Chapdelaine ‘971, to the chewing gum, taught in Chapdelaine ‘574, to obtain a fruit juice containing food product having a fruit component, a sweet base, as well as cool and refreshing feeling substances. One of ordinary skill in the art would have been motivated to use a fruit juice in the chewing gum, taught in Chapdelaine ‘574, because fruit juices flavor and enhance chewing gum products (Chapdelaine ‘971, col. 1, ln. 21-24).

16. Regarding claims 2 and 6, Chapdelaine ‘971 teaches the fruit component includes both an apple juice concentrate (col. 6, ln. 22) and a straight lemon juice (col. 6, ln. 35).

17. Regarding claim 4, Chapdelaine ‘574 suggests using about 0.1% of a refreshing feeling substance, it is apparent that the instantly claimed amount of less than 0.05% and that taught by Chapdelaine ‘574 are so close to each other that the fact pattern is similar to In re Woodruff , 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did

not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

18. In light of the case law cited above and given that there is only a "slight" difference between the amount of refreshing feeling substances disclosed by Chapdelaine '574 and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of cool and refreshing feeling substances, it therefore would have been obvious to one of ordinary skill in the art that the amount of fat disclosed in the present claims is but an obvious variant of the amounts disclosed in cool and refreshing feeling substances, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

19. Regarding claim 5, Chapdelaine '574 teaches the ratio of cool feeling substance (flavor, col. 4, ln 36-37) to the refreshing feeling substance (3-1- menthoxypropane- 1,2-diol, col. 1, ln. 51) is from 0.2:1 to 200:1. Calculation: 0.2 to 1 = .1% cool feeling substance : 0.5% refreshing feeling substance; 200:1 = 10% cool feeling substance : 0.05% refreshing feeling substance. Furthermore, Chapdelaine '574 prepared examples where the ratio was from about 0.14:1 to about 0.19:1 (Example 4, col. 7, gums 4 and 5).

20. Regarding claims 17-18 and 21-22, it is the Examiner's position that each of the components taught in Chapdelaine '574 in view of Chapdelaine '971 were added to the composition. The phrase, "for reinforcing a flavor," is a statement of intended use. A

statement with regard to intended use is not further limiting as a manipulative difference between the process claimed and the prior art. In order to patentably distinguish the claimed invention from the prior art, a claimed intended use must result in a manipulative difference between the claimed invention and the prior art. See MPEP § 2111.02 II. In the present case there is no manipulative difference from the chewing gum composition, taught in Chapdelaine '574 in view of Chapdelaine '971, and the claimed process. Furthermore, it is reasonable to presume that said limitations are inherent to the invention because Chapdelaine '574 in view of Chapdelaine '971 teaches the claimed composition. Products of identical chemical composition can not have mutually exclusive properties. MPEP 2112.01 II.

21. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapdelaine et al., USPN 5,326,574 ("Chapdelaine '574"), In view of Chapdelaine et al., USPN 4,938,971 ("Chapdelaine '971"), as applied to claims 1-3, 5-6, 9-10, 17-18 and 21-22 above, and further in view of Nakatsu et al., USPN 5,545,424.

22. Chapdelaine '574 in view of Chapdelaine '971 is relied upon as above. Chapdelaine '574 in view of Chapdelaine '971 does not teach an additional flavor improving substance. Nakatsu is drawn to 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane and its derivatives, which are useful as an active ingredient for flavor or fragrance compositions (col. 1, ln. 7-10). Nakatsu teaches 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane and its derivatives (col. 2, ln. 22-43) prolong the cooling sensation when used in combination with menthol or 3-(1-menthoxy)-1,2-propanediol, (col. 4, ln.

34-39). Nakatsu teaches the composition is useful in chewing gums, candies, ice creams, ice candies, chocolates, snacks, cookies, cakes, breads, tea, coffee, juice, fruit wine, dairy drinks, and carbonated drinks (col. 4, ln. 43-47). It would have been obvious to one of ordinary skill in the art at the time of invention to use a flavoring improving substance, as taught in Nakatsu, in the fruit juice containing food product, taught in Chapdelaine '574 in view of Chapdelaine '971, to obtain a fruit juice containing food product containing a to 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane or its derivatives because the composition prolong the cooling sensation in a food product (Nakatsu, col. 4, ln. 37-39).

23. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapdelaine et al., USPN 5,326,574 ("Chapdelaine '574"), In view of Chapdelaine et al., USPN 4,938,971 ("Chapdelaine '971"), as applied to claims 1-3, 4-6, 9-10, 17-18 and 21-22 above, and further in view of Spencer, USPN 5,047,251.

24. If Chapdelaine '574 in view of Chapdelaine '971 does render the range of refreshing feeling substance obvious, then Chapdelaine '574 in view of Chapdelaine '971 is relied on as above. Spencer is drawn to peppermint oil with improved stability against oxidation breakdown (Abstract). Spencer teaches the invention provides peppermint oil with excellent flavor and visual characteristics (col. 8, ln. 21-23). Spencer suggests the flavoring can be used in chewing gums (col. 8, ln. 13). Spencer teaches the using from about 0.01% of the peppermint oil as a flavoring agent (col. 8, ln. 18). It would have been obvious to one of ordinary skill in the art at the time of invention to use

the peppermint oil, taught in Spencer, in the fruit juice containing food product, taught in Chapdelaine '574 in view of Chapdelaine '971, to obtain a fruit juice containing food product having a refreshing 0.01% to 5% of a feeling substance. One of ordinary skill in the art would have been motivated to use the peppermint oil, taught in Spencer, because the peppermint oil has excellent flavor and visual characteristics (Spencer, col. 8, ln. 21-23).

25. Claims 11-12 and 23-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Chapdelaine et al., USPN 5,326,574 ("Chapdelaine '574"), In view of Chapdelaine et al., USPN 4,938,971 ("Chapdelaine '971"), as applied to claims 1-3, 5-6, 9-10, 17-18 and 21-22 above, and further in view of Tezuka et al., USPN 4,514,423.

26. Chapdelaine '574 in view of Chapdelaine '971 is relied upon as above. Chapdelaine '574 in view of Chapdelaine '971 does not teach the food product is a fruit juice containing dairy product.

27. Tezuka is drawn to chewing gum (col. 1, ln. 10). Tezuka teaches incorporating ice cream (col. 4, ln. 55) into chewing gum creates a smooth feel upon chewing; non-stickiness to the teeth; superior properties, such as chewability, film-forming stability and inflatability to the conventional chewing gum; and no degradation of the quality and the chewability despite of combination with the confectionery containing the fat and oil ingredient (col. 3, ln. 33-42). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate ice cream, as taught in Tezuka, into the chewing gum, taught in Chapdelaine '574 in view of Chapdelaine '971, to obtain a fruit

juice containing ice cream dairy product. One of ordinary skill in the art would have been motivated to use ice cream in the chewing gum because the ice cream creates improved properties in the gum (Tezuka, col. 3, ln. 33-42).

28. Regarding claims 23-24, it is the Examiner's position that each of the components taught in Chapdelaine '574 in view of Chapdelaine '971 in view of Tezuka were added to the composition. The phrase, "for reinforcing a flavor," is a statement of intended use. A statement with regard to intended use is not further limiting as a manipulative difference between the process claimed and the prior art. In order to patentably distinguish the claimed invention from the prior art, a claimed intended use must result in a manipulative difference between the claimed invention and the prior art. See MPEP § 2111.02 II. In the present case, there is no manipulative difference from the chewing gum composition, taught in Chapdelaine '574 in view of Chapdelaine '971 in view of Tezuka, and the claimed process. Furthermore, it is reasonable to presume that said limitations are inherent to the invention because Chapdelaine '574 in view of Chapdelaine '971 in view of Tezuka teaches the claimed composition. Products of identical chemical composition can not have mutually exclusive properties. MPEP 2112.01 II.

29. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapdelaine et al., USPN 5,326,574 ("Chapdelaine '574"), In view of Chapdelaine et al., USPN 4,938,971 ("Chapdelaine '971"), in view of Tezuka et al., USPN 4,514,423 as

applied to claims 11-12 and 23-24 above, and further in view of Nakatsu et al., USPN 5,545,424.

30. Chapdelaine '574 in view of Chapdelaine '971 in view of Tezuka is relied upon as above. Chapdelaine '574 in view of Chapdelaine '971 in view of Tezuka does not teach an additional flavor improving substance. Nakatsu is drawn to 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane and its derivatives, which are useful as an active ingredient for flavor or fragrance compositions (col. 1, ln. 7-10). Nakatsu teaches 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane and its derivatives (col. 2, ln. 22-43) prolong the cooling sensation when used in combination with menthol or 3-(1-menthoxy)-1,2-propanediol, (col. 4, ln. 34-39). Nakatsu teaches the composition is useful in chewing gums, candies, ice creams, ice candies, chocolates, snacks, cookies, cakes, breads, tea, coffee, juice, fruit wine, dairy drinks, and carbonated drinks (col. 4, ln. 43-47). It would have been obvious to one of ordinary skill in the art at the time of invention to use a flavoring improving substance, as taught in Nakatsu, in the fruit juice containing food product, taught in Chapdelaine '574 in view of Chapdelaine '971 in view of Tezuka, to obtain a fruit juice containing dairy food product containing a to 4-(1-menthoxymethyl)-2-phenyl-1,3-dioxolane or its derivatives because the composition prolong the cooling sensation in a food product (Nakatsu, col. 4, ln. 37-39).

***Conclusion***

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

32. Watson et al., USPN 4,136,163, teaches cyclic carboxamides that exhibit a cooling sensation in fruit juices and other food products (col. 13, Example 14).

33. Wolf et al., USPN 6,455,080, teaches a chewing gums composition comprising fruit flavor and acyclic carboxamide.

34. Oppenheimer et al., USPN 4,980,169, teaches throat lozenges comprising 1-menthol and capsicium oleoresin.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WALTER MOORE whose telephone number is (571) 270-7372. The examiner can normally be reached on Monday-Thursday 9:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WM/
Walter Moore, Examiner AU 1794

/David R. Sample/
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